

FIG. 1



Front and Back Side Oxide Patterning

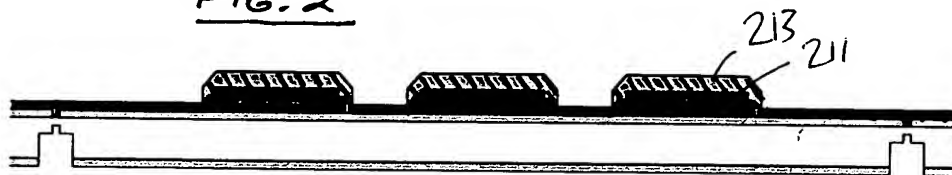
Back Side DRIE Etching

1st Cr/Au Deposition and Patterning (100Å/3000Å)

1st Parylene Deposition (1μm)

FIGURE 1

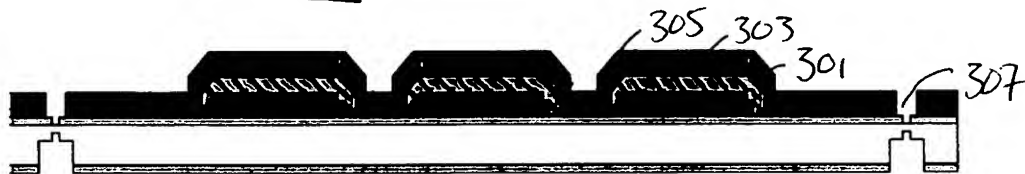
FIG. 2



Sputtered Si Deposition and Patterning (3000Å)

1st Sacrificial Photoresist Patterning (4μm)

FIG. 3



2nd Parylene Deposition and Patterning (1μm)

2nd Cr/Au Deposition and Patterning (100Å/1500Å)

3rd Parylene Deposition and Patterning (1μm)

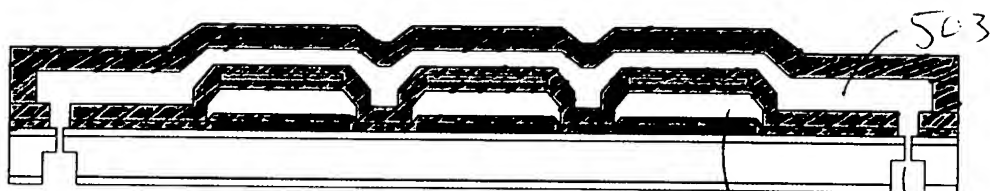
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FIG. 4



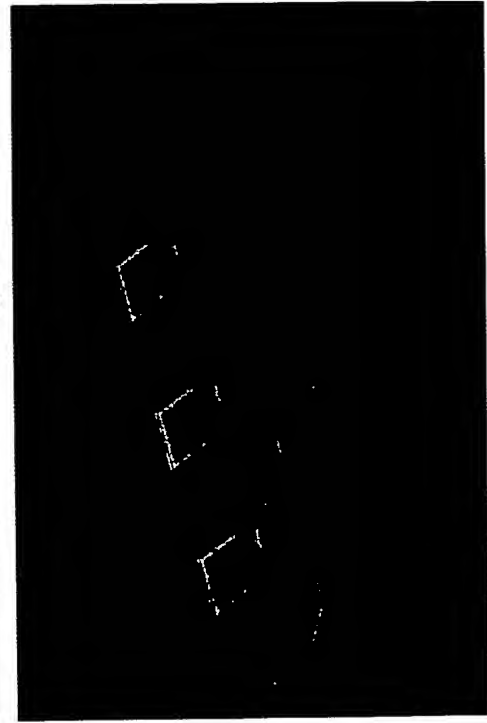
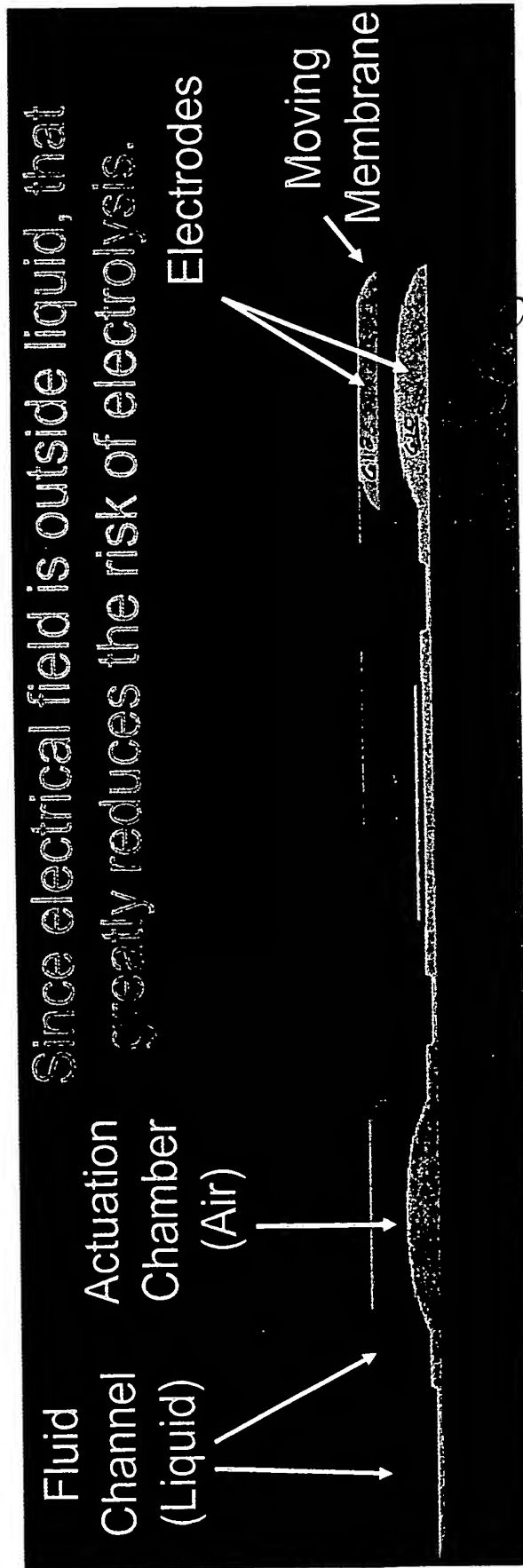
2nd Sacrificial Photoresist Patterning ($5\mu\text{m}$)
 4th Parylene Deposition and Patterning ($4\mu\text{m}$)

FIG. 5



DRIE Open Backside Inlet and Outlet
 Acetone Release Sacrificial Photoresist
 BrF₃ Release Sacrificial Si

				
1st Cr/Au	2nd Cr/Au	Si	Photoresist	Parylene



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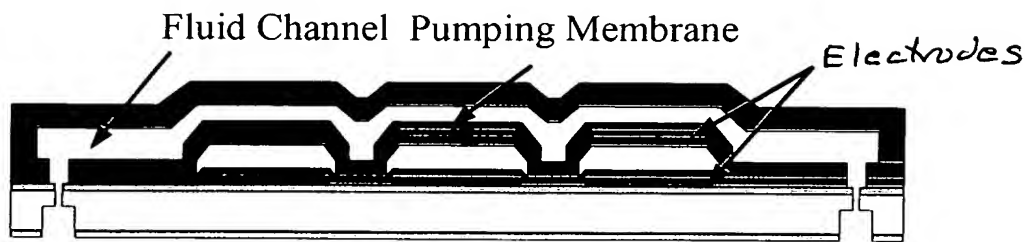
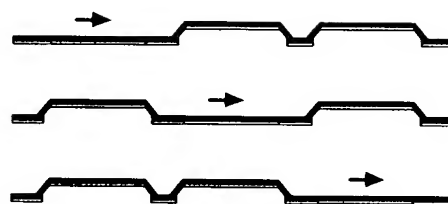


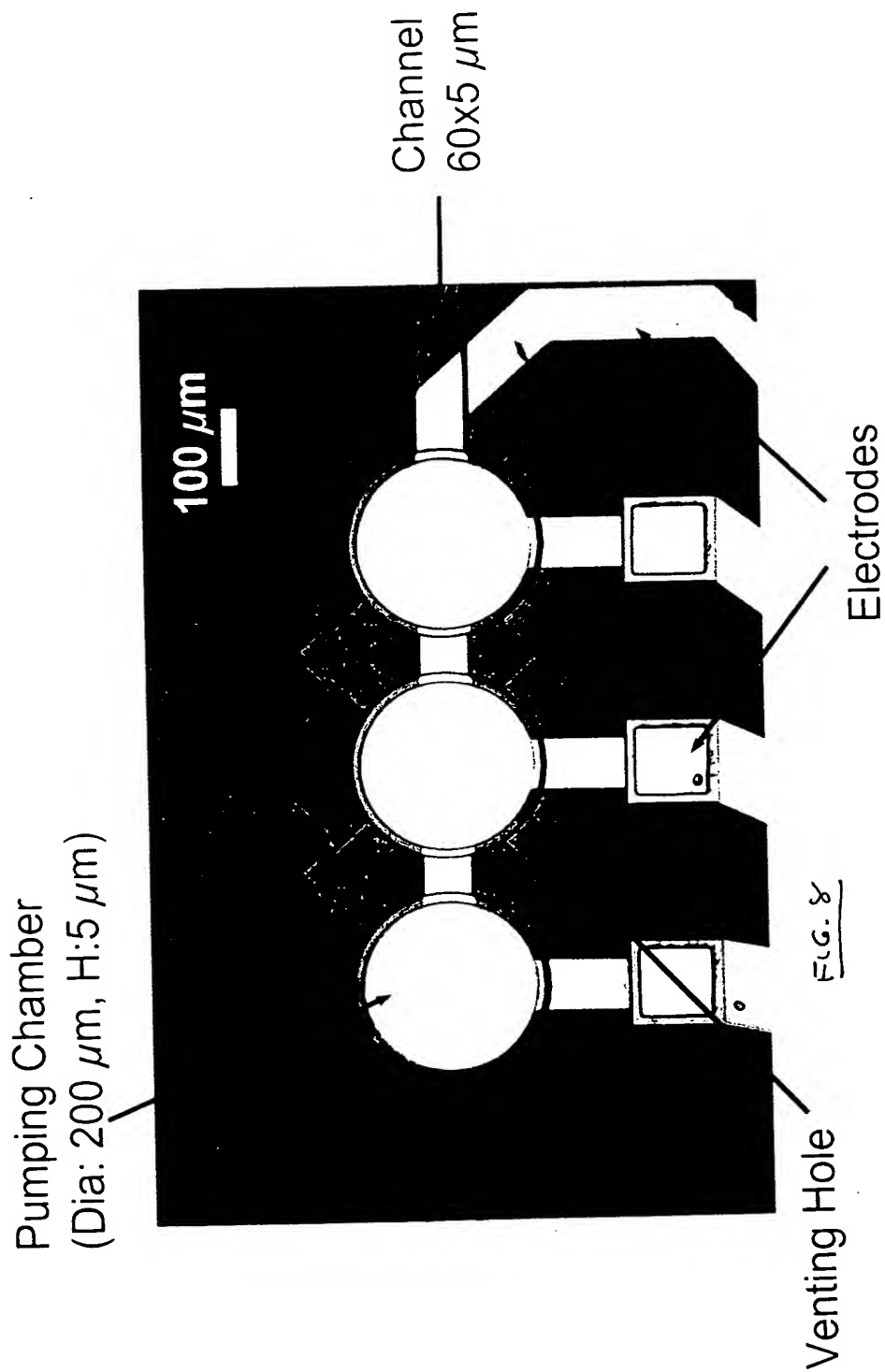
FIG. 7A

FIG. 7B



3 Phase Actuation

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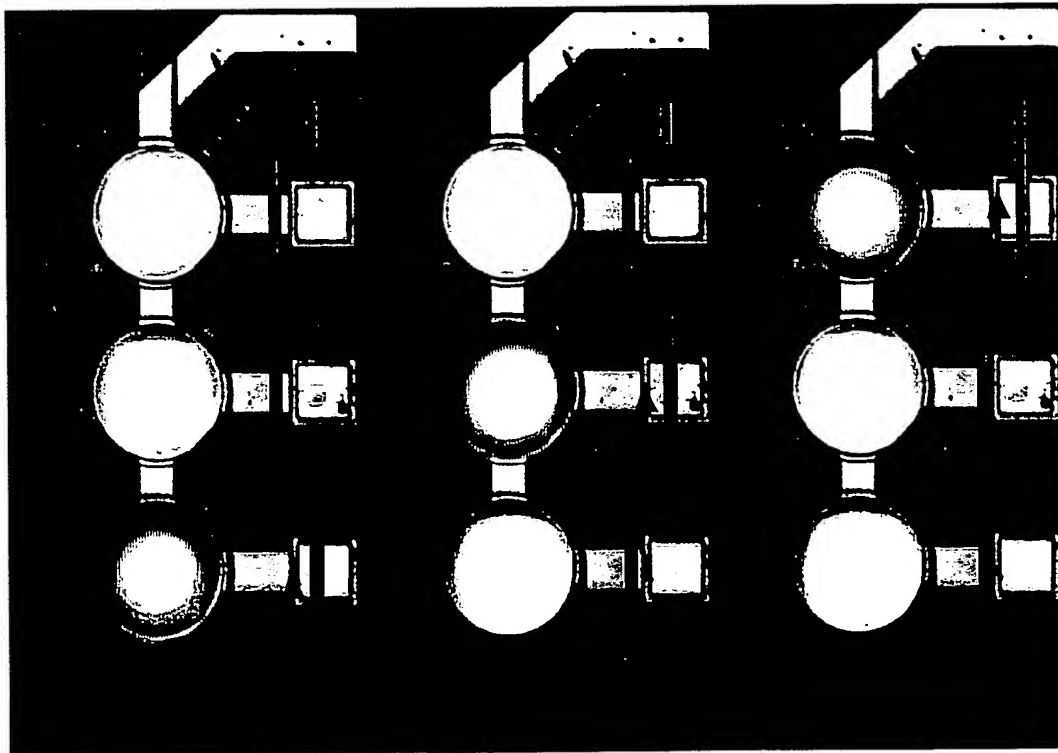


FIG. 9

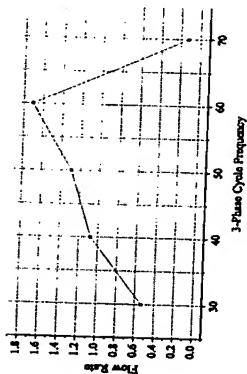


FIGURE 10

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FIG. 11A

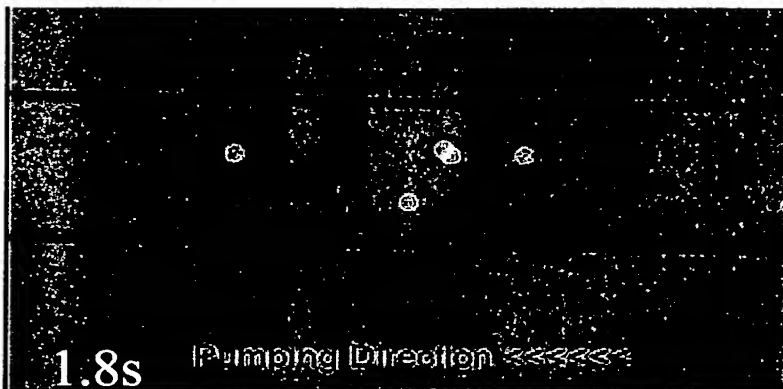


FIG. 11B



FIG. 11C

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